UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,984	06/20/2003	Kurt R. Carlson	NGC-140/000047-199	7137

32205 7590 06/20/2006

CARMEN B. PATTI & ASSOCIATES, LLC
ONE NORTH LASALLE STREET
44TH FLOOR
CHICAGO, IL 60602

EXAMINER	
ZEMEL, IRINA SOPJIA	

ART UNIT	PAPER NUMBER
1711	

DATE MAILED: 06/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/600,984	CARLSON ET AL.	
	Examiner	Art Unit	
	Irina S. Zemel	1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) *7-13 and 16-20* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6, 14-15, 21-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

The rejections not addressed below are deemed withdrawn.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5,745,627 to Arroyo et al., (hereinafter "Arroyo").

The rejection stands as per reasons of record. Newly added limitation "wherein the introducing of the plurality of voids reduces a density of the polymeric material and promotes a decrease in a bulk modulus of the polymeric material" is inherently met by the polymeric foams disclosed by the reference. See detailed discussion below.

Claims 1-3 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by WO99/36820 to SUN Microsystems Inc., (hereinafter "SUN").

The rejection stands as per reasons of record.

Claims 1-4, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 660082 to Andrew A.G..

The rejection stands as per reasons of record.

Claims 1-3 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by EO 752603 to W.L. gore and Associates (hereinafter "W.L. Gore").

The rejection stands as per reasons of record.

Claim Rejections - 35 USC § 102/103

Claims 21-23 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Andrew AG.

The rejection stands as per reasons of record.

Claim Rejections - 35 USC § 103

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrew A.G. in combination with US 5,706,175 to Takei.

The rejection stands as per reasons of record .

Response to Arguments

Applicant's arguments filed 4-7-2006 have been fully considered but they are not persuasive. The applicants argue that they avoid rejection under 35 USC 102 (b) by introducing in the claims the language "introducing a plurality of voids into a polymeric material, wherein the introducing of the plurality of voids reduces a density of the polymeric material and promotes a decrease in a bulk modulus of the polymeric material."

The applicants argue that the references do not teach this limitation. This arguments are not only unpersuasive, they are not understood on a common sense level. Introducing voids in ANY bulk material when the density of that material (without voids) is greater that the density of voids inherently reduces the density of the material. Since the voids are of gaseous nature or hallow microballons, their density is ingerently significantly lower than that of a polymeric material. It is not seen how introduction of voids can result in anything else but the reduction in density of the

polymeric material. This is the prime reason of introducing bubbles into polymeric materials or creating foamed (actual or syntactic) - to obtain light weight, or reduced density materials as compared to unfoamed polymeric materials. Therefore even though the referenced do not expressly state that foaming polymeric materials result in reduced density, this is the only logical and inherent results of introducing voids (foaming) into a polymeric material. Similarly, a decrease in bulk modulus inherently results from introduction of voids in ANY bulk material. This position is supported by the applicants own disclosure which states on page 6, as a matter of fact or as a common knowledge that "introduction of the voids 208 into the polymeric material 204 reduces the density of the polymeric material 204. The introduction of the voids 208 into the polymeric material 204 also promotes a decrease in a bulk modulus of the polymeric material 204. In a further example, the introduction of the voids 208 into the polymeric material 204 promotes the decrease in the bulk modulus without substantially altering a Young's modulus of the polymeric material 204."

As discussed in the previous office action, Arroyo discloses a cable comprising a central conductor (14) (stress sensitive component) buffered with a foamed polymeric material. Making the foam polymeric material inherently includes a step of introduction of plurality of voids in a polymeric material (in the instant case – polyester). As discussed above, making foams inherently results in decreased density and reduced bulk modulus whether or not the reference expressly addresses this property. Thus, the newly added limitation does not obviate the anticipation rejection over Arroyo.

The applicants further argue that W099/36829 does not disclose that the buffer layer of plastic foam is a polymeric material as recite in applicant's claim 1. This argument is very puzzling, since the examiner can not understand what the applicants are trying to say by this argument. The reference expressly states that the plastic foam is made from for example, polyethylene, which is, to a common knowledge of any chemist, a polymeric material by it very definition - -POLYethylene- means polymerized ethylene or polymeric material having ethylene monomeric units. Also, the applicants are referred to ANY dictionary for a common definition of "plastic" as "a synthetic material made from organic **polymers**, that can be moulded into shape while soft and then set into a rigid or slightly elastic form" (emphasis added). Further similarly to arguments with respect to Arroyo, whether the reference discloses reduction in density and bulk modulus or not, such reduction inherently results from introduction of voids into a bulk material.

The same very response applies to the applicants argument that EP 660082 does not expressly disclose reduction in density and decrease in bulk modulus. The applicants argument with respect to EP 660082 teaching "use of Young's modulus of the gel rather than decrease in bulk modulus of polymeric material", again, is not understood. It is not clear what "use of Young's modulus" has to do with disclosure of reduction in bulk modulus. Any bulk material has Young's modulus and certain applications of certain materials require specific Young's modulus. How this related to disclosure of decreased bulk modulus (which, by the way may not, according to

disclosure on page 6 of the instant specification, even have any effect on Young's modulus) or to the claimed limitation is totally unclear.

The present the same very arguments regarding the other reference, i.e., EP 752603, and again the examiner repeats that introduction of voids, or forming a polymeric foam, inherently meets the claimed limitation of in decreased density and reduced bulk modulus whether or not the reference expressly addresses these properties or effects.

`Thus, the arguments are not found persuasive and all of the art rejections stand as per reasons of record..

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

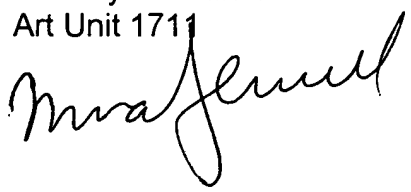
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Irina S. Zemel
Primary Examiner
Art Unit 1711



ISZ